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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,840	10/22/2001	Hiroshi Ikeda	826.1764	8384
21171	7590	10/20/2005		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER DIMYAN, MAGID Y	
			ART UNIT 2825	PAPER NUMBER

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,840

Applicant(s)

IKEDA ET AL.

Examiner

Magid Y. Dimyan

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 25-28 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9, 11-13, 16, 18, 30 and 31 is/are allowed.
- 6) ☒ Claim(s) 1-5, 14, 15, 17, 19-24, 29 and 32 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This pertains to the Amendments to the Claims, and to the Remarks, both filed August 04, 2005. Applicants have amended claims 6, 7, 9 – 18, 22, 24, 26 and 28 – 32. It should be noted however, that Applicants have **elected Group I** (claims 1 – 24 and 29 – 32) **without traverse** in their Response to Restriction Requirements, filed January 03, 2005. **The Applicants should thus cancel claims 25 – 28 in the next Office Action.** Claims 1 – 32 remain pending in this Application, while claims 25 – 28 are considered withdrawn from consideration by the Examiner.

Response to Remarks

2. Applicant's arguments, see Remarks filed August 04, 2005 with respect to the rejections of claims 1 – 6, 29, 30 and 32 under 35 USC 102(e) and 7, 8, 16, 24 and 31 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, **new grounds of objections and rejections** are made as indicated below.

Claim Objections

3. Claims 1 – 5, 10, 14, 17 and 20 – 24 are objected to because of the following informalities:

- These amended claims are replete with poorly constructed claim language, which is confusing to read and difficult to understand. The examiner will only cite some examples, but Applicants should **carefully review** these claims to

ensure that the claim language is written in **proper idiomatic English**
Language that is easy to follow and comprehend.

- Claim 1, line 4, delete "one or more condition" and insert --at least one condition--. Line 7, delete "set", and insert --at least one--. Line 8, delete "a condition" and insert --the at least one--.
- Claims 4, 14 and 17, line 4 and claim 24, line 9: it is unclear what is meant by "**passing control forward**". Control of what? Furthermore, this element is not adequately described in the Specification.
- Claims 10, 20 and 21 refer to "**a path connecting the pins has a longest delay time and a shortest delay time**". A path cannot have both a shortest delay and a longest delay. Modification of the claim language is necessary.
- Claims 20, 21 and 24 are poorly written, very difficult to read, and do not provide any significant meaning to the Examiner. For example, the claims refer to third delay to eighth delay, but make no mention of first delay and second delay. The significance of all these delays is ambiguous and not clear.
- Claim 20, lines 4, 7, 13 and 15, insert --is-- before "computed".

4. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 4, 14, 17 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation of "passing control forward" is not adequately described in the specification.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 20, 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. These claims are generally narrative and indefinite, and fail to conform to current U.S. practice. They appear to be a literal translation into English from a foreign document and are thus very hard to follow. Examples are: claim 20, lines 13 – 20; claim 21, lines 7 – 20; and claim 22, lines 2 – 4. Furthermore, no reference is made of first delay and second delay in these claims.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1 – 5, 29 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,609,237 to Hamawaki et al. (hereinafter, "Hamawaki").

12. Regarding claims 1, 29 and 32, Hamawaki teaches a method (claims 1 and 32) and a computer program (claim 29) for a search for a route of a signal from a starting pin to an end pin in an IC circuit by combining cells which are basic elements (see Abstract; col. 1, lines 10 – 15; Figs. 1 – 4) that include: setting at least one or more conditions (i.e., constraints) satisfied by a route to be distinguished from other routes from the starting point pin to the end point pin (see Figs. 1 – 5; col. 1, lines 15 – 19; col. 2, lines 40 – 46); and distinguishing a route from others depending on whether the route satisfies the at least one condition (constraint) and carrying out a search from the starting point pin to the end t pin, depending on the constraint (see also Figs. 1 and 6; Abstract; col. 3, lines 47 – 52; col. 9, lines 29 – 35). Thus, Hamawaki clearly recites all the claimed limitations.

13. Referring to claims 2 and 3, see (12) above, as well as Fig. 1, block S4; Fig. 6, block S60; col. 9, lines 5 – 35, which clearly teach the claimed elements pertaining to route constraints in searching for a route.

14. As for claims 4 and 5, see (12) above, as well as Figs. 3, 12 and 13; col. 8, line 62 – col. 9, line 20, which teach the elements pertaining to route identification codes, as claimed.

Allowable Subject Matter

15. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and rewritten to overcome the objections cited above.

16. Claims 6 – 9, 11 – 13, 16, 18, 30 and 31 are allowed.

17. The following is a statement of reasons for the indication of allowable subject matter: these claims contain limitations pertaining to route searching when there are two or more routes from a starting point pin to the end point pin joining one another on the same pin that are not disclosed in the prior art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magid Y. Dimyan whose telephone number is (571) 272-1889. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Magid Y Dimyan
Examiner
Art Unit 2825

myd
04 October 2005

M7D

A. M. Thompson
Primary Examiner
Technology Center 2800

